

The inventor of the above-referenced patent application died during the time intervening between the filing of the patent application and the First Office Action. Applicant's heir has signed a Declaration for Patent Application pursuant to 37 C.F.R. §1.63, a copy of which is submitted with this Response to the First Office Action.

II. Rejection of Claims 14-16 under 35 U.S.C. §112, second paragraph:

In the Official Action of February 28, 2002 the Examiner rejected claims 14-16 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 12-20 to clarify the issues raised by the Examiner. Accordingly, in view of the amendment to claims 12-20, Applicant respectfully requests the Examiner to remove the rejection under 35 U.S.C. §112, second paragraph.

III. Rejection of Claim 1, 3-6, 9-12 and 20 under 35 U.S.C. §102(b):

Claims 1, 3-6, 9-12 and 20 were rejected under 35 U.S.C. §102(b) as being anticipated by *Oostendorp*, U.S. Patent No. 5,649,413. The Examiner stated:

"Oostendorp discloses the same invention including an elongated monofilament (14) with a proximal and a distal end comprising of a collar (50) with a flange (Fig. 6), that the collar comprises a hollow circular cross-section extending end-to-end (Fig.3), that the monofilament is flush with the collar (Fig. 6), a trimmer comprising of a cutting head (Fig. 4) with a first end adapted to engage a drive shaft (Fig. 4) and a second end having an elongated annular flange and an aperture in the flange extending from the interior wall to the exterior wall (Fig. 6), that a portion of the monofilament extending from the distal end lies within the interior wall (Fig. 6), that at least one trimmer line piece has a first end sized for insertion through the aperture (Fig. 6) and a stop sized to prevent the second end to travel through the aperture (Fig. 6), that the collar is crimped to the monofilament (Fig. 6 {Examiner notes that the word "crimped" means to be an inhibiting or restraining influence on an object. Therefore, Figure 6 clearly shows item 50 restraining item 14}), and that the crimp forms an indentation into the monofilament (Although no indentation is shown in Oostendorp, it is inherent that, in order for item 50 to restrain item 14, contact must be made. The first applied to item 14 from item 50 would create a deformation or in this case an indentation in 14)."

In response to this rejection, Applicant has amended claim 1 to further clarify the position and

placement of the collar with respect to the trimmer line.

The Applicants respectfully submits that claims 1, 3-6, 9-12 and 20, as amended, recite features not found in *Oostendorp*. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131.01 (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). *Oostendorp* is a trimming and lawn edging device. The device includes two flexible filament line elements 14 which include a collar member 50. The filament may be fed through a hole 40 with the collar 50 positioned against a plate 16. The collar member 50 of *Oostendorp* is not equivalent to the collar member of Applicant. The collar 50 of *Oostendorp* is shown in Figs. 6 as being flush with one end of the filament line 14, and in Fig. 3 is being placed near a distal end of the filament line 14. However, the collar of *Oostendorp* is not a collar with a reduced diameter that is positioned to extend from the distal end of the filament to a flange positioned near the distal end of the filament and having a diameter substantially greater than the collar positioned adjacent to the distal end of the filament. Rather, the collar of *Oostendorp* is shown having a uniform internal diameter and a uniform external diameter. The external diameter of *Oostendorp* is greater than the diameter of the filament, and is shown either flush with the distal end of the filament (Figs. 4 and 6) or near the distal end of the filament (Fig. 3). Applicant's invention comprises a collar with a flange. The collar has a uniform internal diameter, and a non-uniform external diameter. The external diameter of the flange section of the collar is substantially greater than the external diameter of the remaining section of the collar. The flange is adapted to hold the filament within an aperture of a trimming device. The purpose of the collar together with the flange is clear in the disclosure. It is intended that the flange remains flush with an aperture in the trimming device, and the collar extending from the flange to the distal end of the trimmer line reduces pressure on the filament during operation. The length of the collar that extends from the distal end of the filament to the flange enables the collar to function as a hinge to the filament and to prevent breakage of the filament during operation. Accordingly, Applicants' invention is patentably distinguishable from the trimmer line of *Oostendorp*.

IV. Rejection of Claims 2 and 17 under 35 U.S.C. §103(a):

In the Office Action of February 28, 2002, the Examiner rejected the claims 2 and 17 under 35 U.S.C. §103(a) as being unpatentable over *Oostendorp* ('413) in view of *Jacyno et al.* *Oostendorp* discloses a trimmer line for use in a gas trimming and lawn edging device. The trimmer line includes a collar mounted on the trimmer line near the distal end of the line. See Fig. 3. The *Jacyno et al.* reference discloses a trimmer line for a lawn edging device with a triangular cross section. The trimmer line of *Jacyno et al.* has an eyelet connector mounted at the distal end of the trimmer line. Accordingly, the *Oostendorp* patent discloses a trimmer line with a collar near the distal end of the line, and the *Jacyno et al.* reference discloses a trimmer line with a triangular cross-section and an eyelet connector at the distal end of the line.

Applicant hereby incorporates by reference each and every element of the disclosure and remarks pertaining to the *Oostendorp* patent as discussed above.

Applicant's invention functions on a different principle than that taught in *Oostendorp* and *Jacyno et al.* Applicant's invention functions to reduce pressure on the trimmer filament and to enable the filament to hinge. The length of the collar that extends from the distal end of the trimmer line to the flange functions to prevent breakage of the filament. *Oostendorp* teaches a trimmer line with a collar near the distal end of the line. The collar of *Oostendorp* is similar to the flange of Applicant. However, *Oostendorp* does not teach a collar that extends from the flange to the distal end of the line. Furthermore, *Oostendorp* does not teach a collar with two sections having different size external diameters. Similarly, *Jacyno et al.* does not teach use of a collar forward of the distal end of the trimmer line. *Jacyno et al.* discloses a trimmer line with an eyelet connector extending distal of the distal end of the line to enable the line to secure to a post within the hub of the trimmer apparatus. Although *Jacyno et al.* discloses a non-circular cross section of the trimmer line, neither *Jacyno et al.* nor *Oostendorp* disclose a trimmer line with a collar and flange combination with the properties taught by Applicant. Accordingly, there is no suggestion or teaching in *Oostendorp* or *Jacyno et al.* to extend the collar from the distal end of the filament line to the flange to mitigate pressure on the filament.

Initially, the prior art must teach or suggest all claimed limitations presented by the claimed invention. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03 (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). As mentioned above, there is no teaching suggestion or motivation in *Oostendorp* to provide a collar that extends from the distal end of the filament line to the flange. Similarly, there is no teaching suggestion or motivation in *Jacyno et al.* to provide a collar proximal of the distal and of the filament line. Accordingly, the cited prior art fails to teach or suggest all the claim limitations present in Applicant's claimed invention.

V. Rejection of claim 7 under 35 U.S.C. §103(a):

Similarly, the Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over *Oostendorp*. Applicant hereby incorporates by reference each and every element of the disclosure and remarks pertaining to the *Oostendorp* patent as discussed above. The Examiner states that the placement of the crimp 1/3 the distance from the distal end of the collar is an obvious design choice. Applicant respectfully disagrees with the Examiner's assertion. Placement of the crimp 1/3 the distance from the distal end of the collar is an engineering decision to reduce the stress and strain on the filament line. Reduction of stress and strain functions to prevent breakage of the filament. None of the references of records disclose the placement of a securing element, such as a crimp from the collar to the filament line, at a specific location to enhance the strength of the line. Furthermore, the crimp location is not claimed with limitations associated with the size of the collar of the filament line. Placement of the crimp is associated with the collar and is not dependent upon the size. Applicant hereby requests the Examiner to produce a prior art reference that teaches placement of the securing means at the claimed location. Accordingly, placement of the crimp as claims is not an obvious design choice, rather it is an engineering decision which is not associated with a "mere change in the size of a component".

VI. Rejection of claim 8 under 35 U.S.C. §103(a):

The Examiner rejected the claim 8 under 35 U.S.C. §103(a) as being unpatentable over

Oostendorp ('413) and *Jacyno et al.* ('865) in view of *Legrand*. *Oostendorp* discloses a trimmer line for use in a gas trimming and lawn edging device. The trimmer line includes a collar mounted on the trimmer line near the distal end of the line. See Fig. 3. The *Jacyno et al.* reference discloses a trimmer line for a lawn edging device with a triangular cross section. The trimmer line of *Jacyno et al.* has an eyelet connector mounted at the distal end of the trimmer line adapted to secure to a cylindrical post. The *Legrand* patent discloses a trimmer line with a covering to provide a smooth exterior surface.

Applicant hereby incorporates by reference each and every element of the disclosure and remarks pertaining to the *Oostendorp* and *Jacyno et al.* patents as discussed above.

The *Legrand* patent ('914) discloses a trimmer line for cutting vegetation. The trimmer line includes a core element and a covering for the core element. The covering is intended to provide a smooth exterior surface to the line. *Legrand* does discuss the intended purpose of the modifications disclosed to improve mechanical properties of the trimmer line. Neither *Oostendorp* nor *Jacyno et al.* disclose the elements of the trimmer line of Applicant. More specifically, neither *Oostendorp* nor *Jacyno et al.* discloses a collar extending from the distal end of the line, and having a proximal end of the collar with a flange having a diameter greater than the diameter of the distal end of the collar. The *Oostendorp* patent discloses a trimmer line with a collar near the distal end of the line, and the *Jacyno et al.* reference discloses a trimmer line with a triangular cross-section and an eyelet connector at the distal end of the line. The *Legrand* patent discloses a line with a covering over the exterior surface.

For it to be obvious to combine prior art references, the references must teach, suggest, or motivate one with ordinary skill in the art to combine the references and create the claimed invention. "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." MPEP §2143.01. The *Legrand*

reference does not disclose a collar having a flange mounted on a trimmer line, but instead teaches a trimmer line with an exterior coating. *Jacyno et al.* discusses a trimmer line with an eyelet extending distal of the line to secure the line with a hub. Oostendorp discloses a collar mounted flush with the distal end or adjacent to the distal end, but does not disclose a collar with a flange. None of the references disclose information regarding securing a collar or an equivalent apparatus to a trimmer line by means of a crimp or an equivalent securing means. Accordingly, none of the prior art reference utilized by the Examiner teaches, suggests, or motivates one of ordinary skill in the art into creating a collar with a flange and crimping the collar to the trimmer line to enhance the mechanical properties of the trimmer line as claimed by Applicant.

Furthermore, the prior art must teach the desirability of the modification suggested by the Examiner. "The mere fact the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon et al.*, 733 F.2d 900, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). Oostendorp teaches a trimmer line with a collar having a uniform external diameter along the length of the collar but does not teach a flange at a proximal end of the collar with an external diameter greater than the external diameter along the remaining length of the collar. Nor does Oostendorp disclose securing the collar to the line in the form of a crimp to enhance the mechanical properties of the trimmer line. *Jacyno et al.* discloses a trimmer line with a mechanical element secured to the distal end, wherein the mechanical element includes an eyelet distal of the trimmer line to secure the line to a hub of a trimming apparatus. Finally, *Legrand* discusses modifying a trimmer line to enhance its mechanical properties, but places a coating over the external surface of the line to achieve this result. Neither Oostendorp nor *Jacyno et al.* nor *Legrand* discloses a collar with a flange and securing the collar to the line in the form of a crimp. Accordingly, none of the prior art reference suggests the desirability of the modifications represented by Applicant's claimed invention.

VII. Rejection of claim 18 under 35 U.S.C. §103(a):

The Examiner rejected the claim 18 under 35 U.S.C. §103(a) as being unpatentable over *Oostendorp* ('413) in view of *White, III* ('831). *Oostendorp* discloses a trimmer line for use in a gas trimming and lawn edging device. The trimmer line includes a collar mounted on the trimmer line near the distal end of the line. See Fig. 3. The *White, III* reference discloses an eyelet adjacent to the distal end of the trimmer line for a lawn edging device wherein the eyelet is made of a metallic material.

Applicant hereby incorporates by reference each and every element of the disclosure and remarks pertaining to the *Oostendorp* patents as discussed above.

The *White, III* patent discloses a cutting head for a filament. The filament includes an eyelet adapted to be placed within a slot opening of the cutting head. The eyelet may be formed of an Aluminum material. However, the prior art must teach the desirability of the modification suggested by the Examiner. "The mere fact the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon et al.*, 733 F.2d 900, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). *Oostendorp* teaches a trimmer line with a collar having a uniform external diameter along the length of the collar but does not teach a flange at a proximal end of the collar with an external diameter greater than the external diameter along the remaining length of the collar. *White, III* discloses a trimmer line with a mechanical element adapted to be placed within a slot of the cutting head, wherein the mechanical element may be made of an Aluminum material. Neither *Oostendorp* nor *White, III* discloses a collar with a flange and making the collar and the flange elements of a metallic material. Accordingly, none of the prior art reference suggests the desirability of the modifications represented by Applicant's claimed invention.

VIII. Rejection of claim 19 under 35 U.S.C. §103(a):

The Examiner rejected the claim 19 under 35 U.S.C. §103(a) as being unpatentable over *Oostendorp* ('413) and *White, III* ('831). *Oostendorp* discloses a trimmer line for use in a gas trimming and lawn edging device. The trimmer line includes a collar mounted on the trimmer

line near the distal end of the line. See Fig. 3. The *White, III*. reference discloses a an eyelet adjacent to the distal end of the trimmer line for a lawn edging device wherein the eyelet is made of a brass material.

Applicant hereby incorporates by reference each and every element of the disclosure and remarks pertaining to the *Oostendorp* patents as discussed above.

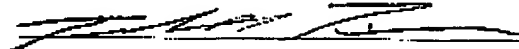
The prior art must teach the desirability of the modification suggested by the Examiner. "The mere fact the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon et al.*, 733 F.2d 900, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). *Oostendorp* teaches a trimmer line with a collar having a uniform external diameter along the length of the collar but does not teach a flange at a proximal end of the collar with an external diameter greater than the external diameter along the remaining length of the collar. *White, III* discloses a trimmer line with a mechanical element adapted to be placed within a slot of the cutting head, wherein the mechanical element may be made of an Aluminum material. Neither *Oostendorp* nor *White, III* discloses a collar with a flange and making the collar and the flange elements of a brass material. Accordingly, none of the prior art reference suggests the desirability of the modifications represented by Applicant's claimed invention.

Finally, attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made." No new subject matter has been added to the amended claims. In view of the forgoing amendments and remarks, it is submitted that all of the claims remaining in the application are now in condition for allowance and such action is respectfully requested. Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that she be contacted at the number indicated below.

For the reasons outlined above, withdrawal of the rejection of record and an allowance of this application are respectfully requested.

Respectfully submitted,

By:



Rochelle Lieberman
Registration No. 39,276
Attorney for Applicant

Lieberman & Brandsdorfer, LLC
12221 McDonald Chapel Drive
Gaithersburg, MD 20878-2252
Phone: (301) 948-7775
Fax: (301) 948-7774
Email: rocky@legalplanner.com
Date: June 28, 2002

Application No.: 09/706,844

Version with Markings To Show Changes Made

In the Claims:

Please amend the claims as follows:

Claim 1 has been amended as follows:

1. (Amended) A trimmer line comprising:

an elongate monofilament having a proximal end and a distal end;

~~said distal end comprising a collar secured to a distal end of~~ said monofilament;

said collar comprises a proximal end and a distal end, ~~wherein said proximal end of said collar comprises a flange adjacent to said proximal end thereof for securing said monofilament to a trimming apparatus;~~

said proximal end of said collar comprises a flange adjacent to said proximal end thereof.
said flange includes an external diameter greater than an external diameter of said collar,
wherein said flange is adapted to place said monofilament adjacent to an aperture in a trimming apparatus; and

said distal end of said collar extends from said distal end of said monofilament to said flange, wherein said collar includes an external diameter lesser than the external diameter of said flange.

Claim 2 has been amended as follows:

2. (Amended) The trimmer line of claim 1, wherein said monofilament ~~comprising~~ comprises a non-circular cross section.

Claim 3 has been amended as follows:

3. (Amended) The trimmer line of claim 1, wherein said collar comprises a hollow circular cross-

section ~~extending~~ adapted to extend from the proximal end to the distal end.

Claim 6 has been amended as follows:

6. (Amended) The trimmer line of claim 5, wherein said crimp forms an indentation into said monofilament forward to of said distal end.

Claim 8 has been amended as follows:

8. (Amended) The trimmer line of claim 7, wherein ~~positioning~~ placement and position of said collar and said crimp is adapted to reduce ~~reduces~~ stress and strain on said monofilament ~~preventing and to prevent~~ premature breakage of said monofilament from said collar.

Claim 9 has been amended as follows:

9. (Amended) A trimmer line for a trimmer comprising:

said trimmer comprising a cutting head having a housing with a first end adapted for mounting to be mounted to a drive shaft ~~of said trimmer~~, and a second end having an elongated annular flange and an aperture in said flange extending from an interior wall to an exterior wall;

said trimmer line comprising a finite monofilament length comprising a proximal end and a distal end;

a collar mounted to said distal end of said monofilament;

said collar comprising a proximal end and a distal end, ~~wherein~~ said distal end of said collar is adapted to be flush with said distal end of said monofilament, and said proximal end of said collar comprising a flange ~~sized to prevent said proximal end of said collar from passing through said aperture of said having an external diameter greater than said collar and greater than said aperture of said flange: and~~

said flange of said collar comprising a distal end and a proximal end, wherein said proximal end of said flange is adapted to be placed in communication with said interior wall of said aperture of said cutting head flange.

Claim 10 has been amended as follows:

10. (Amended) The trimmer line of claim 9, wherein a portion of said monofilament extending from said distal end ~~of to~~ said collar to said flange rests within said interior wall of said cutting head.

Claim 11 has been amended as follows:

11. (Amended) The trimmer line of claim 9, wherein said collar is ~~flush with~~ within said interior wall of said cutting head.

Claim 12 has been amended as follows:

12. (Amended) The trimmer line of claim 11, wherein said collar is ~~crimped~~ comprises a crimp adapted to secure said collar to said monofilament.

Claim 14 has been amended as follows:

~~14~~ 13. (Amended) The trimmer line of claim ~~13~~ 12, wherein said crimp forms an indentation into said monofilament.

Claim 15 has been amended as follows:

~~15~~ 14. (Amended) The trimmer line of claim ~~14~~ 12, wherein said crimp is located 1/3 the distance from the distal end of the collar.

Claim 16 has been amended as follows:

~~16~~ 15. (Amended) The trimmer line of claim ~~15~~ 12, wherein positioning of said collar and said crimp is adapted to reduce ~~reduces~~ stress and strain on said monofilament ~~preventing and is~~

adapted to prevent breakage of said monofilament from said collar.

Claim 17 has been amended as follows:

~~+7~~ 16. (Amended) The trimmer line of claim 9, wherein said monofilament further comprising comprises a spur mounted between said flange and said proximal end of said monofilament.

Claim 18 has been amended as follows:

~~+8~~ 17. (Amended) The trimmer line of claim 9, wherein said collar is comprised of a metallic material.

Claim 19 has been amended as follows:

~~+9~~ 18. (Amended) The trimmer line of claim ~~+8~~ 17, wherein said metallic material is brass.

Claim 20 has been amended as follows:

~~20~~ 19. (Amended) A trimmer line for a line trimmer cutting head; comprising:
said cutting head comprises having a housing with a first end adapted for mounting to be mounted to a drive shaft of a line trimmer apparatus; and having a second end with an elongated open annular flange, ~~at least one aperture in said flange extending from an inner wall to an outer wall of said flange, comprising;~~

said annular flange comprises a wall with an interior side and an exterior side, and said wall includes an aperture therein adapted to extend from said interior side to said exterior side of said wall;

at least one said trimmer line piece having comprising a first end sized for insertion adapted to be inserted through said aperture from said ~~inner wall~~ interior side to said ~~outer wall~~ exterior side of said wall; and

a stop at a second end of the line piece sized to prevent said second end of the line piece

~~from passing through said aperture, wherein said trimmer line piece further includes at least one spur spaced from said stop~~

said trimmer line comprising a second end with a collar adapted to extend from said second end to said interior side of said wall; and

said collar comprises a proximal end with a flange having an external diameter greater than a diameter of said aperture, wherein said flange is adapted to rest against said interior side of said wall.

PATENT
Attorney Docket No.:1139-201

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Grant
SERIAL NO.:	09/706,844
FILING DATE:	November 7, 2000
FOR:	Gas Trimmer Cutting Line

Group Art Unit: 3724

Examiner: Prone, Jason D.

Declaration and Power of Attorney For Patent Application

As a below named heir, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name. I believe I am the sole heir of the sole inventor in the above-noted patent application which is claimed and for which a patent is sought on the invention entitled:

Gas Trimmer Cutting Line

the specification of which was filed on November 7, 2000.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and I have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

(NONE)

I claim the benefit under Title 35, United States Code, §120 of any United States Application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information material to the patentability of this application as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Declaration & Power of Attorney

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PATENT
Attorney Docket N .:1139-201

(NONE)

All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true. Further, these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY

As a named inventor I hereby appoint the following attorneys to prosecute this application and transact all business in the Patent and Trademark Office connected therewith

Rochelle Lieberman - 39.276

Send Correspondence to:

Rochelle Lieberman, Esq.
Lieberman & Brandsdorfer, LLC
12221 McDonald Chapel Drive
Gaithersburg, MD 20878-2252

Fax: 301-948-7775

Direct Telephone Calls to:

Rochelle Lieberman, 301 948 7776

Full name of heir

Mary Ann Johnson

Heir's signature

Date

Residence

1454 Barker Road
Ebony, VA 23845

Citizenship

United States of America

Post Office Address

Same as Above

This declaration ends with this page.

Declaration & Power of Attorney

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